

2 / Pre
a
Leur's
10/18/00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Donald V. Smart
Serial No. : Divisional of 09/096,600
Filed : August 7, 2000
Title : PULSE CONTROL IN LASER SYSTEMS

Art Unit : Unknown
Examiner : Unknown

Commissioner for Patents
Washington, D.C. 20231

PRELIMINARY AMENDMENT

Prior to examination, please amend the application as follows:

In the Claims:

Please cancel claims 1-39 without prejudice or disclaimer to the subject matter.

Please add new claims 40-69.

40. A method of operating a pulsed laser system comprising:
providing a pulsed laser system comprising a laser source;
presetting a pre-selected pulse shape to be produced by the pulsed laser system, based on
known properties of a target material to be processed on a workpiece; and
pulsing the pulsed laser system at a pre-selected repetition rate selected independently of
the pre-selected pulse shape, to cause the laser source to process the target material on the
workpiece, while the pre-selected pulse shape remains as preset regardless of the repetition rate.

41. The method of claim 40 wherein the pre-selected pulse width is a pre-selected pulse
width.

42. The method of claim 40 wherein the pre-selected pulse shape is a pre-selected pulse
energy.

43. The method of claim 40 wherein the pre-selected pulse shape is a pre-selected peak
pulse power.

all Sub 1
cont